Demystifying Generative AI

Session 1

Introduction to Artificial Intelligence & Generative AI

READY. SET. POLL TIME!




- **Microsoft Bing > Designer:**

- **Prompt:**
  - Create a hyper-realistic image of a group of people in an office setting. They all look a bit confused and clueless about a topic, and the atmosphere is colorful and vibrant.

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What we will cover:

1. **What is AI?**
2. **What is Generative AI (Gen AI)?**
3. **How do all these technologies fit together?**
4. **How does AI work?**
5. **Why do we need AI?**
6. **What we need know about using AI?**

AI through the years...a timeline

1940-50s
Pioneers explored "**thinking machines**" concept. The concept of AI is born.

1960-70s
Advancements in NLP, robotics, and expert systems.

1970-80s
"**AI Winter**" with limited progress due to funding and technology limitations.

Early 2000s
Due to advancements in computing power, data, and algorithms - Renewed interest in AI

2010s-20s
Deep learning breakthroughs lead to major advancements in AI capabilities.

2019
Microsoft invests $1B in OpenAI

2020
OpenAI unveils GPT-3 Large Language Model (LLM)

2021
Google unveils LaMDA (LLM)

2022
the AI BOOM begins
ChatGPT is released to the public

2023
Microsoft releases Bing powered by GPT-4
Google releases BARD powered by LaMDA

2024
The HEAT IS ON!

AI
Artificial
Intelligence

What is Artificial Intelligence?

- **Ability of computers to perform tasks**
- **which normally require Human Intelligence**
-
  - **Understand language & images**
  - **Recognize complex patterns**
  - **Make decisions**

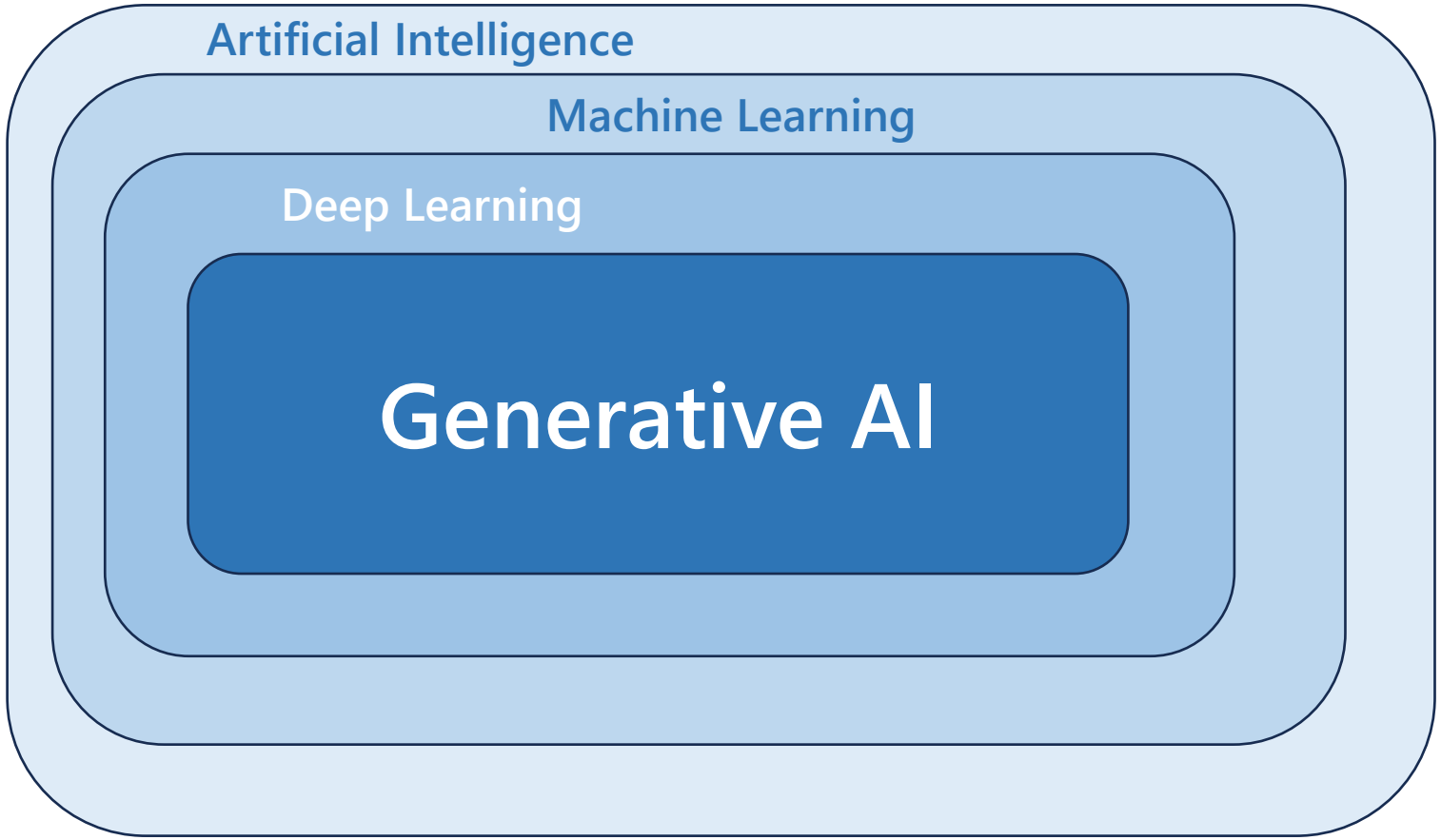
Gen AI - Generative AI

What is Generative AI (Gen AI) ?

Type of AI which can CREATE new things:
- Text, Images, Code, Music and now Video!

Generative AI is based on
Large Language Models (LLMs)

Artificial Intelligence & Generative AI – The Relationship



Large Language Models (LLMs)
(Machine Learning Model)

LaMDA
Google – Bard now Gemini (ChatBOT)

GPT-3/4
OpenAI – ChatGPT
Microsoft Bing (ChatBOTs)

How does Generative AI (GenAI) work?

Big Datasets:
- **LLMs train on massive sets of data**

Pattern Recognition:
- **Learn to identify patterns & relationships**

Generation:
- **Models use what they learned to create new output**

How can AI improve our lives?

Productivity Booster:

- Streamline tasks – from emails, summarizing information, research

Spark Creativity:

- Generate ideas, brainstorm solutions, inspiration & kickstart innovation

Accessibility:

- Translates languages, Transcribe audio, make information accessible

AI: Innovations made faster & easier

Medicine, R&D:

- Drug discovery, Assist in diagnosis, Personalized treatment

Education:

- Personalized Learning, Tutoring, accessible learning resources

Agriculture:

- Reduce and customize fertilizers, fend off pests and improve yields

Accessibility:

- Makes Knowledge accessible to all levels of learners

Points to Remember about Generative AI

The Good

- Instant **access to** huge quantities of **information**
- Feels like a ***natural conversation***
- **Learns from** previous **conversations**
- Helps **generate new content** (text, image, sounds – now video)
- **Multiple language** support

Points to Remember about Generative AI

Good to Know – BUT be VERY Cautious about

- Prone to **Hallucinations** – AKA – ***can make stuff up***
- **Does not** always **get nuance** or be helpful or be appropriate
- **Cannot show empathy** or verify information
- New laws and rules about usage – be careful when using
- New powers – but **ethics & verification** is still **users' responsibility!**

Questions?
Comments?

We would love your feedback!

Please fill out the survey! Check the chat for a link

Points to Remember about Generative AI

General Guidelines for Proper Usage:

1. **Understand the Tool**: Know how the AI tool works and the source of its training data.
2. **Check for Copyright**: Before using an AI-generated image, verify that it does not infringe on existing copyrights.
3. **Use Original Prompts**: When generating images, use unique prompts to reduce the risk of creating content that resembles copyrighted works.
4. **Respect Privacy**: Avoid using personal data or likenesses without consent.
5. **Stay Informed**: Keep up-to-date with the latest legal developments regarding generative AI.

Ethical Considerations:

- ***Transparency**: Be transparent about the use of AI-generated content.*
- ***Accountability**: Take responsibility for the AI-generated content and its implications.*
- ***Bias and Fairness**: Be aware of potential biases in AI tools and strive for fairness in content creation.*

It's important to note that the legal landscape is still being shaped, and new cases and regulations could significantly impact how generative AI tools should be used[1][2][3]. Users should stay informed and consult legal experts when in doubt. Remember, while generative AI offers exciting possibilities, it also requires a new level of responsibility and awareness from all users.

LET'S RECAP

Artificial Intelligence (AI): computers can perform tasks which usually require human intelligence.

Machine Learning (ML): To get to AI - machines learn from data to make decisions or predictions.

Deep Learning: It's inspired by the structure of the human brain, and it's used to recognize patterns.

Large Language Models (LLMs): These are models that have been trained on a **large amounts** of text data.

Natural Language Processing (NLP): For interaction between computers and humans via natural language.

ChatBots: Designed to simulate a conversation with human users, especially over the internet.

Next Steps!

YOUTUBE:

[WATCH TO LEARN THE PERFECT CHATGPT PROMPT FORMULA - IN JUST 8 MINUTES!!!]

LINKEDIN LEARNING PATH:

[BUILDING GENERATIVE AI SKILLS FOR BUSINESS PROFESSIONALS]